CLAIMS

1-14. (Canceled)

15. (Currently Amended)   Process comprising:

_____for estimating a propagation channel formed by successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot and a plurality of frequencies carrying data, the process comprising wherein estimating comprises:

extracting said at least one reference pilot present in each of said symbols; and

for each of said symbols:

obtaining a first estimate of said propagation channel, by time/frequency interpolation on said extracted at least one reference pilot;

independently correcting each of said at least one reference pilot, in phase and amplitude, and as a function of said first estimate, to output a corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of said at least one reference pilot; and

obtaining a second estimate of said propagation channel, by analysis of said corrected pilot.

16. (Cancelled)

17. (Previously Presented)   Process for estimating a propagation channel according to claim 15, wherein said error vector calculation step includes averaging of a set of error vectors obtained on at least one symbol.

18. (Previously Presented)   Process for estimating a propagation channel according to claim 17, wherein said averaging is calculated on each symbol.

19. (Previously Presented)   Process for estimating a propagation channel according to claim 17, wherein said set of error vectors only includes error vectors that satisfy at least one predetermined quality criterion.

20. (Previously Presented)   Process for estimating a propagation channel according to claim 15, wherein said calculation step for an amplitude and phase error vector comprises a preliminary step in which said pilots with an amplitude less than a first predetermined minimum average threshold and/or greater than a second predetermined maximum average threshold are rejected.

21. (Previously Presented)   Process for estimating a propagation channel according to claim 15, wherein said second estimate includes an equalisation step that depends on the first estimate.

22. (Previously Presented)   Process for estimating a propagation channel according to claim 21, wherein said equalisation step is performed on all carrier frequencies of each of said symbols.

23. (Previously Presented)   Process for estimating a propagation channel according to claim 21, wherein the process comprises a step after said equalisation step to calculate a pulse response of the propagation channel as a function of the at least one reference pilot equalized by the equalization step, for refining synchronisation of receivers in time.

24. (Previously Presented)   Process for estimating a propagation channel according to claim 15, wherein said the reference pilot correction step includes a division of these pilots by the first estimate.

25. (Previously Presented)   Process for estimating a propagation channel according to claim 17, wherein said correction step of the at least one reference pilot also includes a final step to correct all equalised useful carriers taking account of an average value obtained as a result of said

averaging.

26. (Previously Presented)   Process for estimating a propagation channel according to claim 15, and further comprising using the process for correction of at least one phase and/or amplitude error common to two cells in a same OFDM (Orthogonal Frequency Division Multiplex) type symbol.

27. (Currently Amended)   A device comprising:

      means for estimating a propagation channel formed of successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot, and a plurality of data carrier frequencies, the ~~device~~ means for estimating comprising:

      means for extracting said at least one reference pilot present in each of said symbols; and

      means for obtaining estimates of said propagation channel, which comprises, for each of said symbols:

            making a first estimate of said propagation channel, by time/frequency interpolation on said extracted at least one reference pilot;

            independently correcting each of said at least one reference pilot, in phase and amplitude, as a function of said first estimate, to output at least one corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of said at least one reference pilot; and

          making a second estimate of said propagation channel, by analysis of said at least one corrected pilot with phase and amplitude correction.

28. (Currently Amended)   A device comprising:

a channel estimator device configured to estimate ~~for estimating~~ a propagation channel formed of successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot, and a plurality of data carrier frequencies, the channel estimator device comprising:

an extraction element, which extracts the at least one reference pilot present in each of said symbols; and

a first estimation element, which makes a first estimate of the propagation channel, for each of said symbols, by time/frequency interpolation on the extracted at least one reference pilot;

a correction element, which for each of said symbols independently corrects the at least one reference pilot, in phase and amplitude, as a function of the first estimate, to output at least one corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of said at least one reference pilot; and

a second estimation element, which for each of said symbols makes a second estimate of said propagation channel, by analysis of the at least one corrected pilot with phase and amplitude correction.

29. (New)   A process comprising:

estimating a propagation channel formed by successive symbols of a multi-carrier signal, each symbol comprising at least one reference pilot and a plurality of frequencies carrying data, wherein estimating comprises:

extracting said at least one reference pilot present in each of said symbols; and

for each of said symbols:

obtaining a first estimate of said propagation channel, by time/frequency interpolation on said extracted at least one reference pilot;

independently correcting each of said at least one reference pilot, in phase and amplitude, and as a function of said first estimate, to output a corrected pilot with phase and amplitude correction, said correction step including a step to calculate an amplitude and phase error vector for each of said at least one reference pilot, which comprises a preliminary step in which said pilots with an amplitude less than a first predetermined minimum average

threshold and/or greater than a second predetermined maximum average threshold are rejected; and

obtaining a second estimate of said propagation channel, by analysis of said corrected pilot.